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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,179	08/27/2001	Stuart E. Massey	16293/09001	3507
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NELSON MULLINS RILEY & SCARBOROUGH, LLP 1320 MAIN STREET, 17TH FLOOR COLUMBIA, SC 29201			EXAMINER JOO, JOSHUA	
			ART UNIT 2154	PAPER NUMBER

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/940,179	<b>Applicant(s)</b> MASSEY, STUART E.	
	<b>Examiner</b> Joshua Joo	<b>Art Unit</b> 2154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-18 are presented for examination.

### ***Claim Objections***

2. Claims 2-10, 11-18 are objected to because of the following informalities:
  - i) As per claims 2-10, the dependent claims start with the word "A". Please change the claims to start with "The" since the claims are dependent on the invention of claim 1.
  - ii) As per claims 12-15, the dependent claims start with the word "An". Please change the claims to start with "The" since the claims are dependent on the invention of claim 11.
  - iii) As per claims 17-18, the dependent claims start with the word "An". Please change the claims to start with "The" since the claims are dependent on the invention of claim 16.
  - iv) As per claims 11-18, the word "arrangement" is unclear as the word "arrangement" has multiple interpretations. Please specify what the arrangement Applicant is claiming such as by replacing "arrangement" with "network" or "system".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - i) As per claim 7, "predefined configuration objects" lacks proper antecedent basis. "predefined configuration objects" will be interpreted as "topological configuration objects."
  - ii) As per claim 9, claim 9 is written in an improper dependent form because the claim does not further limit claim 1. Claim 9 states "said first message format and said second

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message format are different protocols." However in claim 1, section (f), the claim states "issuing via said first interface a second message to said originating system in said first message format". Claims 1 and 9 are contradicting claims since claim 1 states that the first and second messages are in the same format, and claim 9 states that the first and second message format are different. Therefore, claim 9 has been withdrawn from consideration.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-7, and 16-17 are rejected under 35 U.S.C. 102(e) as being unpatentable by Bowman-Amuah, US Patent #6,606,660.

7. As per claim 1, Bowman-Amuah teaches the invention as claimed including a method for communication between disparate systems in a computing environment. Bowman-Amuah's teachings comprise of:

(a) receiving a first message in a first message format from an originating system, said first message having request data indicative of a transaction request (Col 211, lines 1-3.

Message sent from sending system to receiving system. Col 296, lines 55-59. Messaging for transaction request.);

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(b) at a first interface, evaluating said first message to ascertain said request data (Col 212, lines 5-9, 46-54. Evaluate meta-data.);

(c) said first interface further applying a predetermined criteria to said request data so as to generate said transaction request (Col 212, lines 11-18. Format message into fixed format message. Col 69, lines 38-50; Col 212, lines 48-53. Interface for translating messages. );

(d) routing said transaction request to an appropriate service system to be responsively fulfilled (Col 212, lines 13-15. Message is send to System B.);

(e) fulfilling said transaction request at said service system and indicating same to said first interface (Col 212, lines 15-18. System B responds to message request.); and

(f) issuing via said first interface a second message to said originating system in said first message format as a first response message to said transaction request (Col 212, lines 51-53. Message is formatted to fixed format for transmitting in stream between systems. Col 212, lines 15-17. System B translates received request to recreate data structure. Translating respond to data structure is inherent.).

8. As per claim 3, Bowman-Amuah teaches the method as set forth in claim 2, wherein said service system includes a server agent in communication with said interface agent (Col 100, lines 17-21. Software agents perform client and server tasks. Col 70, lines 6-14, 52-60. Communicate with message queuing.).

9. As per claim 4, Bowman-Amuah teaches the method as set forth in claim 3, wherein said agents communicate with each other via message queues (Col 100, lines 17-21. Software agents perform client and server tasks. Col 70, lines 6-14, 52-60. Communicate with message queuing.).

10. As per claim 5, Bowman-Amuah teaches the method as set forth in claim 1, wherein said first interface functions to generate a context data structure organizationally independent of said first message format, said context data structure being acted upon in servicing said transaction request (Col 212, lines 11-13. Message is converted to Fixed format message and put into a data stream. Col 212, lines 43-45. Translate structured data off of stream.).

11. As per claim 6, Bowman-Amuah teaches the method as set forth in claim 5, wherein said transaction request is routed to said service system through application of topological configuration objects (Col 69, lines 38-42. Message-Oriented middleware and interface; Col 100, lines 20-21. Client and server; and Col 211, lines 15-19. Object based systems.) to a predetermined ruleset (Col 212, lines 14-18. Fixed Format contract to recreate data structure. Col 258, lines 28-31. Application based on ruleset.).

12. As per claim 7, Bowman-Amuah teaches the method as set forth in claim 6, wherein said predefined configuration objects are modifiable independently of said ruleset (Col 87, lines 52-53; Col 88, lines 9-15. Firewall providing filtering and NAT services. Col 99, lines 31-43. System security. Col 89, lines 59-61; Configure to handle traffic.)

13. As per claim 16, Bowman-Amuah teaches the invention as claimed including a method for communication between disparate systems in a computing environment. Bowman-Amuah's teachings comprise of:

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a first interface running first agents according to a predetermined configuration objects (Col 100, lines 17-21. Software agents perform client and server tasks. Col 212, lines 46-54. Interface.);

a second interface running second agents according to said predetermined configuration objects (Col 100, lines 17-21. Software agents perform client and server tasks. Col 212, lines 46-54. Interface.);

said first interface being operative to translate a first message format received from said first computer entity into an organizationally independent context data structure (Col 212, lines 11-13. Convert message into Fixed Format message.); and

said second interface reading and acting upon said context data structure to produce a second message in a second message format issued to said second computer entity (Col 212, lines 14-17. Convert Fixed Format message to recreate message.).

14. As per claim 17, Bowman-Amuah teaches the arrangement as set forth in claim 16, wherein:

said second computer entity issues a third message in said second message format in response to said second message (Col 212, lines 16-18. System B generates message.), said second interface being operative to update said context data structure based thereon (Col 212, lines 16-18. Convert message to Fixed Format message.); and

said first interface responsively acting to read said context data structure and produce a fourth message in said first message format back to said first computer entity (Col 212, lines 16-18. Process in reverse. Fixed format message to message.).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman-Amuah, in view of Gupta, US Publication #2003/0009543.

17. As per claim 8, Bowman-Amuah does not teach the method as set forth in claim 1, wherein said step of fulfilling said transaction request comprises:

(g) at a second interface, issuing a third message in a second message format to an auxiliary system requesting information;

(h) receiving a second response message at said second interface in said second message format containing said information; and

(i) extracting said information from said second message at said second interface and providing said information to said service system.

18. Gupta teaches of:

at a second interface, issuing a third message in a second message format to an auxiliary system requesting information (Paragraph 0073. Convert request message into an object-oriented interface description language.);

receiving a second response message at said second interface in said second message format containing said information (Paragraph 0077. Sending the converted request message to at least one network management sub-agent process.); and



extracting said information from said second message at said second interface and providing said information to said service system (Paragraph 0081-0082. Process request.).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bowman-Amuah and Gupta because both teachings are similar in that they deal with communicating with other systems by converting messages to different formats. Furthermore, the teachings of Gupta to perform the above steps of Paragraph 20 would improve the teachings of Bowman-Amuah by allowing the systems of Bowman-Amuah to forward and service requests in a distributed environment.

20. As per claim 10, Bowman-Amuah and Gupta taught the method as set forth in claim 8. Bowman-Amuah further teaches wherein said first message format and said second message format are equivalent protocols (Col 212, lines 10-18. System B responds in Fixed Format Message.).

21. Claims 2, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman-Amuah, in view of Pace et al, US Publication #2003/0051236 (Pace hereinafter).

22. As per claim 2, Bowman-Amuah teaches of systems equipped with agents to perform client and server tasks. Bowman-Amuah also teaches of extracting request data from said external messages; and produce said transaction request from said request data (Col 212, lines 6-16, Meta-data is used for conversion.). However, Bowman-Amuah does not teach of agents specifically performing the above functions.

23. Pace teaches of nodes with agents that handle communications with other nodes (Paragraph 0476) using appropriate protocols (Paragraph 0473).

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24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bowman-Amuah and Pace because the teachings of Pace to provide agents that are specifically capable of handling communications between other nodes would improve the teachings of Bowman-Amuah because agents would allow the systems to process multiple tasks, thus making the systems more efficient.

25. As per claim 11, Bowman-Amuah teaches the invention as claimed including a method for communication between disparate systems in a computing environment. Bowman-Amuah's teachings comprise of:

each of said computer systems being equipped with agents to transfer external messages into and out of a particular message format (Col 212, lines 10-14. System converts messages into and out of Fixed Format Messages. Col 100, lines 17-21. Software agents perform tasks.); and

each of said computer systems further having stored configuration objects indicating expected transaction requests and corresponding service systems (Col 212, lines 14-18. System receives messages and processes message. Col 215, lines 42-45. Services provided by server. Col 211, lines 29-32. Communication between systems.).

26. Bowman-Amuah teaches of systems equipped with agents to perform client and server tasks. However, Bowman-Amuah does not specifically teach that the agents are operative to convert messages into and out of a particular message format; and disassociating the transaction requests from incoming message by said agents and configuration objects, said transaction requests being automatically routed to appropriate service systems for fulfillment.

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27. Pace teaches of nodes with agents that handle communications with other nodes (Paragraph 0476); and receiving a request, determining if the request can be serviced at the current node, and if not, forwarding the request (Paragraph 0881).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bowman-Amuah and Pace because both teachings are similar in that they deal with providing services for systems residing in different networks. Furthermore, the teachings of Pace to provide agents that are specifically capable of handling communications between other nodes would improve the teachings of Bowman-Amuah because agents would allow the systems to process multiple tasks, thus making the systems more efficient. The teachings of Pace to process the request and routing the request to an appropriate service system would also improve the teachings of Bowman-Amuah by allowing a system to fulfilled the request when resources are distributed in an environment.

29. As per claim 12, Bowman-Amuah teaches of systems equipped with agents to perform client and server tasks. Bowman-Amuah also teaches of extracting request data from said external messages; and produce said transaction request from said request data (Col 212, lines 6-16, Meta-data is used to convert). However, Bowman-Amuah does not teach of agents specifically performing the functions; and server agents in communication with said interface agents so as to fulfill said transaction requests.

30. Pace teaches of nodes with agents that handle communications with other nodes (Paragraph 0476)

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bowman-Amuah and Pace because the teachings of Pace to

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provide agents that are specifically capable of handling communications between other nodes would improve the teachings of Bowman-Amuah because agents would allow the systems to process multiple tasks, thus making the systems more efficient.

32. As per claim 13, Bowman-Amuah teaches the arrangement as set forth in claim 12, wherein said agents communicate with each other using message queues (Col 100, lines 17-21. Software agents perform client and server tasks. Col 70, lines 6-14, 52-60. Communicate with message queuing.).

33. As per claim 14, Bowman-Amuah teaches the arrangement as set forth in claim 11, wherein said agents function to generate a context data structure organizationally independent of said external messages, said context data structure being acted upon in fulfilling said transaction request (Col 212, lines 11-13. Message is converted to Fixed format message and put into a data stream. Col 212, lines 43-45. Translate structured data off of a stream.).

34. As per claim 15, Bowman-Amuah teaches the arrangement as set forth in claim 11, wherein said configuration objects are easily modifiable to reflect changes in said computing environment (Col 258, lines 28-31. Modify state of the application based on rule or ruleset.).

35. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman-Amuah, in view of Balogh, US Patent #6,681,228.

36. As per claim 18, Bowman-Amuah does not teach the arrangement as set forth in claim 16, wherein said context data structure includes a hash table containing pointers to a plurality of element value locations.

37. Balogh teaches of data containing a hash table with pointers referencing data elements (Col 11, lines 56-65).

38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the Bowman-Amuah and Balogh because the teachings of Balogh for a data to contain a hash table with pointers referencing data elements would improve the teachings of Bowman-Amuah by reducing the size of character strings and allowing for faster retrieval of elements located in a database.

### ***Conclusion***

39. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.


41. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on 571 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

42. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 4, 2005  
JJ

  
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